Bohman, Nancy Page 1 of 5

14 October 2003

RE: TEP SAHUARITA-NOGALES TRANSMISSION LINE DEIS

Dear Dr. Pell,

I would like to begin with my statement that I am for NO ACTION by the Department of Energy in building 345-kV transmission lines and am in favor of a locally generated power plant based on the major reasons of lack of need and potentially dangerous impacts. From my reading of the summary of the Tucson Electric Power Company Sahuarita-Nogales Transmission Line Draft Environment Impact Statement Summary of July 2003, I would like to make the following main points on your draft (please keep in mind my major was Psychology, not Electrical Engineering, which would have been more helpful):

1. LACK OF NEED. Per regulation, you are required to consider a "no action alternative." To do this, need has to be considered. As has often been reiterated, the problem experienced several years ago when all this started was corrected early on. It appeared to be a distribution problem not one of supply. At the time, however, before the correction, the Arizona Corporation Commission (ACC) mandated that Citizens build a second transmission line for the customers of Santa Cruz County by December 31, 2003, which obviously isn't going to happen by that time. Because it was mandated, the process has progressed, but in my estimation the mandate should be reconsidered by the ACC or at the very least the new evidence of improved conditions not necessitating more demand now or in the foreseeable future should be addressed and considered when DOE looks at need. I do not see where this was done in your report.

Comment No. 1

The Federal agencies note the commentor's preference for the No Action Alternative.

Comment No. 2

A new power plant in Nogales is not a viable alternative to a new, second transmission line (part of TEP's proposal). Therefore, the alternative of a new power plant is not evaluated in detail in this EIS (refer also to Section 2.1.5, Alternatives Considered But Eliminated From Further Analysis).

Refer to the responses to the Comments 6 and 7 that follow regarding health and safety.

Comment No. 3

The ACC is vested with the state's authority to decide how it believes energy should be furnished within Arizona's borders (for example, the need for and effectiveness of transmission lines within its borders). Refer to the revised text in Section 1.1.2, The Origin of TEP's Proposal: TEP's Business Plan and the Proceedings of the Arizona Corporation Committee, that provides explanation of the jurisdictions and authorities of the state and Federal agencies, and their relationship to this NEPA analysis.

Per Section 2.1.5, local generation and/or improvements to the Citizens distribution system do not eliminate the need for the proposed second transmission line.

Comment No. 4

Chapters 3 and 4 present the affected environment and potential impacts to the environment from the proposed project.

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Bohman, Nancy Page 2 of 5

The applicant states they believe that this "proposed project would have the potential to benefit both southern Arizona and northern Mexico with regard to the availability of electric power." We already have availability. The key word to go along with "benefit" is "potential." Right now and perhaps for the next twentyfive years plus, I don't think this is going to benefit southern Arizona at all and never would if Mexico doesn't progress into more than a third world country. In fact I think there are no advantages, just disadvantages at this time. Want reasons? Try pollution, blackouts, security in random order. I don't think any transmission lines should be built on any corridor, which would eliminate a whole lot of major concerns and issues, because we simply don't need 345-kV transmission lines. Your concern should not be for TEP's wish list, in which the ACC mandate for a powerline was a surprise gift to them and on which they hope to now capitalize.

- 2. IMPACT: Potential Gas Pipeline Hazard. By the very definition of the EIS, environmental impact is your main concern. I cannot fathom how parallel or crossing transmission lines with El Paso Natural Gas lines could ever be considered due to the extreme danger. Talking to an EPNG representative on a station site, I was told that they would never consider having a transmission line anywhere near the gas line. This does not seem to even be addressed in your summary. There are potential problems enough with a gas line alone as have been experienced by residents adjacent to the gas line in Cerro Pelon. All three corridors to some extent either cross or parallel with EPNG line
- 7 3. IMPACT: EMF EXPOSURE. In Table S-1 under Human Health and Environment, your study mentions that

Comment No. 4 (continued)

As part of DOE's decisionmaking process on whether to grant a Presidential Permit for the proposed project, DOE will determine whether the proposed project will adversely impact the reliability of the U.S. electric system. Also, before authorizing exports to Mexico over the proposed 345-kV facilities, DOE must ensure that the export will not impair sufficiency of supply within the United States and will not impede, or tend to impede, the coordinated use of the regional transmission system.

The proposed transmission line would be no greater a terrorist target than any other extra high voltage transmission line in the United States. The worst-case scenario would be that several transmission line poles are felled and that it takes a few days to a couple of weeks to replace them and restring the conductors (see Section 4.11.1 of the EIS).

Comment No. 5

As stated in Section 1.2.2, Federal Agency's Purpose and Need Statements, an agency's statement of purpose and need explains what the agency is called upon to do, given its authority, and it is from this statement of purpose and need that an agency identifies the range of reasonable alternatives it will consider in the EIS. In an applicant-initiated process, such as TEP's proposed project, the range of reasonable alternatives analyzed in detail in the EIS is directly related to the applicant's purpose and need. TEP's purpose and need for the proposed project, as provided to DOE in TEP's Presidential Permit Application, is "... to construct a double-circuit 345 kV, alternating current transmission line to interconnect the existing electrical systems of TEP and Citizens Utilities ("Citizens") in Nogales, Arizona, with a further interconnection to be made from Nogales, Arizona to the CFE transmission system..."

Bohman, Nancy Page 3 of 5

no health effects would be expected from this exposure. I disagree strongly with you from research that I have read. I cite two sources:

www.emfs.info/Source_transmission.asp and www.dhs.cahwnet.gov/ehib/emf/RiskEvaluation/riskeval.html.

In my case as with others who live near the Central Corridor, and for all the people who live near any of the corridors, if a 345-kV transmission line were to be built near our/their homes, one would not always be a set distance away from the transmission lines. If the line is between one's home and I-19, most probably one would be passing closer or under the lines, where the exposure is much greater, each time one left his/her home to go shopping, pick up children, work in the vard, go to the post office, walk one's dog, you get the idea. It is the responsibility of the DOE to accurately assess this very important concern of EMF's with the very latest information and studies and to recognize the fallacy in the study used by the DOE, which apparently didn't taken into consideration that one isn't always a set distance from the power line. Take a second and wonder if you would want your loved ones living in this proximity to the power lines. I feel so strongly about this that I would not want to live next to these lines.

4. **RELIABILITY:** Your draft summary states, "In determining whether a proposed action is in the public interest, DOE considers the impact of the proposed project on the environment and on the reliability of the U. S. electric power supply system." Right now I would categorize our reliability as excellent. As far as our reliability if we were to be connected to Mexico, this is an unknown since we have never connected our grid to Mexico, but common sense would tell me that this is a really bad idea at this time. I know in an earlier correspondence I mentioned the Time magazine article

Comment No. 6

A minimum distance of 100 ft (30 m) would be maintained between any of the proposed transmission line structures and the edge of the existing EPNG pipeline ROW, in compliance with the Amended Certificate of Environmental Compatibility issued to TEP on October 29, 2001, ACC (see Section 4.10 of the Final EIS). As shown in Table 10-2 of the Final EIS, the Federal agencies consulted with EPNG regarding safety requirements, and EPNG concurred that the ACC's requirement is adequate. Section 4.10, Human Health and Environment, of the Final EIS has been augmented to include a discussion of the safety considerations of locating a 345-kV transmission line in the vicinity of a natural gas pipeline.

Comment No. 7

Sections 3.10 and 4.10 summarize the most recent information available on EMF health effects and analyze the potential effects from EMF from the proposed project. Table 4.10-2 presents EMF strengths that may be experienced at various distances from the centerline of the proposed transmission line. Appendix B, Electric and Magnetic Field Background Information, presents studies conducted on human health effects from EMF exposure. The available data have not revealed any conclusive evidence that EMF exposure from transmission lines poses a hazard to animal or human health.

Comment No. 8

As part of DOE's decisionmaking process on whether to grant a Presidential Permit for the proposed project, DOE will determine whether the proposed project will adversely impact the reliability of the U.S. electric system. Also, before authorizing exports to Mexico over the proposed 345-kV facilities, DOE must ensure that the export will not impair sufficiency of supply within the United States and will not impede, or tend to impede, the coordinated use of the regional transmission system.

cont.

Bohman, Nancy Page 4 of 5

8 cont citing how residents in Mexico drained electricity off power lines near their homes. I also mentioned the blackout that occurred in Mexico that sent seven "states" into the Stone Age as far as electricity was concerned. How could this all even be considered at this time? Mexico is not ready and from testimony at one of the scoping meetings a plant manager from Mexico testified they did not want to connect with the United States. grid with Mexico? I don't see where this was addressed in your report.

9

8 cont.

There are also no official agreements between the United States and Mexico at this time for buying or selling electrical power. If there even were agreements, wouldn't you think the reliability of the

U. S. electric power system would be tremendously compromised if the U. S. were to be connected to a

5. **IMPACT: HOMELAND SECURITY.** I would think that with the passage of the Homeland Security Act that this would be first and foremost in your Draft EIS, but I do not see it anywhere. Remember where we are. I would think Nogales, Arizona and anywhere along the Arizona-Mexico border would be a very attractive point of entry to potential terrorists trying to come into this country. The border can't begin to keep out all those from illegally entering or to thoroughly check on all those attempting entry. Connecting grids to all corners of our nation and proposing to connect to Mexico would make disruption of electricity a potential terrorist's goal. In fact, if our grid were to be connected to Mexico's grid, terrorists wouldn't even have to enter our country to cause disruption. The ensuing chaos could then further more devastating acts of terrorism. Terrorists have already shown us they think beyond what most normal people could even envision or imagine. When you consider 345-kV transmission lines and when you consider them even near the EPNG lines, it is frightening.

Comment No. 9

If TEP's proposed project is approved by each of the Federal agencies, then there would still be a variety of events that could preclude TEP from implementing this project, such as the possibility of failure by TEP to secure a power sales contract with CFE. Issuance of a Presidential Permit by DOE would only indicate that DOE has no objection to the project, but would not mandate that the project be built.

Comment No. 10

The Federal agencies have revised Sections 3.1.1 and 4.1.1, Land Use; Section 4.12, Transportation; and Chapter 5, Cumulative Impacts of the Final EIS based on the U.S. Border Patrol's response (USBP 2004) to the Federal agencies' request regarding illegal immigration and law enforcement activities in the proposed project vicinity. The U.S. Border Patrol's response generally re-enforced the information on which the relevant analysis in the Draft EIS was based. The U.S. Border Patrol stated that the roads associated with the construction and maintenance of the proposed project would contribute to an increase in illegal immigrant and narcotic smugglers in the area and affect U.S. Border Patrol operations. The effects of these activities are reflected in the Final EIS in the sections listed above.

The proposed transmission line would be no greater a terrorist target than any other extra high voltage transmission line in the United States. The worst-case scenario would be that several transmission line poles are felled and that it takes a few days to a couple of weeks to replace them and restring the conductors (see Section 4.11.1).

Bohman, Nancy Page 5 of 5

The building of a locally generated power plant would be safer and could supply the future needs of electricity in this county. In the meantime other forms of energy can be studied, i.e., fuel cells. The lessons of 9/11 should not be forgotten by the people of the DOE in connection with analyzing the pros and cons of building new transmission lines, and if homeland security isn't written in as one of the points for study, I am saying it should be.

I have many other points like the visual beauty that I hope is never compromised, but the points I have tried to make above are even more important. I do not feel your study adequately and correctly addressed the major concerns I listed above. Please keep in mind that many of the permanent residents of our area do leave for the warmer months and many may not be aware of the deadline for comments to you on the DEIS. Thank you for the work you are doing and I hope you listen to my concerns (even if I'm not an Electrical Engineer).

Nancy M. Bohman P. O. Box 1340 Tubac, Arizona 85646 e-mail: RTBNMBAZ@AOL.com

Comment No. 11

A new power plant in Nogales is not a viable alternative to a new, second transmission line (part of TEP's proposal). Therefore, the alternative of a new power plant is not evaluated in detail in this EIS (refer also to Section 2.1.5, Alternatives Considered But Eliminated From Further Analysis).

Comment No. 12

Sections 3.2 and 4.2 present analyses of the existing visual resources and potential impacts to these resources.

Comment No. 13

Section 1.6 of the Final EIS has been revised to explain the process conducted by the Federal agencies to invite public participation in the NEPA process, per CEQ requirements.

Bond, Monica Page 1 of 2

From: mbond@biologicaldiversity.org

Sent: Thursday, October 09, 2003 10:33 PM

To: Pell, Jerry

Subject: Environmental Impact Statement for Tucson Electric

Power's proposed 345 kilovolt powerline

Dr. Jerry Pell

U.S. Department of Energy, Office of Fossil Energy (FE-27)

1000 Independence Avenue. SW

Washington, DC 20585

Dear Dr. Pell,

I am writing to urge you to withdraw the current draft
1 Environmental Impact Statement for Tucson Electric Power's proposed 345 kilovolt powerline.

Powerline's often facilitate the invasion of non-native species, can kill raptors, and fragment habitat. TEP's proposed "Western Route" and alternative "Crossover Route" would carve through some of the most remote and wild areas in Southeast Arizona. This area contains several roadless areas as well as a citizen's proposed Wilderness area home to black bears, Mexican spotted owls, lesser-long nosed bats and peregrine falcons as well as lesser known species such as the Sonora chub, Mexican vine snake, elegant trogon and the Gentry indigo bush. A jaguar was sighted in this area only two years ago.

The important goal of providing fully reliable electrical service to the city of Nogales and Santa Cruz County must be achieved. Unfortunately, instead of building the small transmission line necessary to achieve this goal, TEP has proposed a massive, environmentally destructive, and extremely controversial powerline designed to export power to Mexico.

Comment No. 1

The commentor's opinion that the Draft EIS should be withdrawn is noted.

Comment No. 2

Sections 3.3 and 4.3 discuss the existing biological resources and analyze the potential impacts to these resources from the proposed project, including potential special interest species (Section 4.3.3), migratory birds and raptors (Section 4.3.4), and invasive species impacts (Section 4.3.6).

Sections 3.3.2 and 4.3.2 of the Final EIS have been revised to address habitat fragmentation.

Sections 3.1, Land Use, and 3.12, Transportation, discuss the existing IRAs within the Coronado National Forest. Sections 4.1, Land Use, and 4.12, Transportation, evaluate potential impacts to IRAs.

Comment No. 3

TEP's purpose and need for the proposed project, as provided to DOE in TEP's Presidential Permit Application, is "...to construct a double-circuit 345 kV, alternating current transmission line to interconnect the existing electrical systems of TEP and Citizens Utilities ("Citizens") in Nogales, Arizona, with a further interconnection to be made from Nogales, Arizona to the CFE transmission system...." When a Federal agency is evaluating a request for a permit for a proposed action developed by a non-Federal applicant (e.g., TEP), CEQ has opined that Federal agencies should select alternatives which are feasible given the applicant's stated goals and reflect the "common sense realities" of the situation. Therefore, the Federal agencies are evaluating the proposed project presented by TEP to each of the Federal agencies (see Section 1.2.2, Federal Agencies' Purpose and Need Statements).

Bond, Monica Page 2 of 2

The draft EIS is clearly inadequate, because it does not address reasonable alternatives to TEP's powerline which would provide reliable service without destroying our environmental and cultural heritage, and which would not require huge increases to consumers' electricity bills.

The recent blackout in the Northeast is an urgent reminder that our energy policy should be based on serving the public interest, not corporate private profits. I urge DOE to issue a new draft EIS which fully and rigorously explores all available options-including a local power plant and smaller power lines which would not serve Mexico-to meet the important public interest of providing reliable energy service to Santa Cruz County.

Sincerely,

MONICA BOND PO BOX 493 IDYLLWILD, California 92549

Comment No. 4

Section 1.2 of the Final EIS explains the roles of the Federal agencies in developing alternatives for the proposed project. Where an applicant seeks a permit for a particular business project, such as the case with TEP's proposed project, the Federal agencies generally limit their review of alternatives to those that would satisfy the applicant's proposal and decide whether that proposal is or is not worthy of receiving a permit. The Federal agencies do not review alternatives that are not within the scope of the applicant's proposal. Similarly, the agencies do not direct the applicant to alter its proposal; instead, the agencies decide whether a permit is appropriate for the proposal as the applicant envisions it. It is not for the agency to run the applicant's business and to change the applicant's proposal, but only to evaluate the environmental effects of the applicant's business proposal as offered. Accordingly, the EIS evaluates a reasonable range of alternatives, which include the full spectrum of alternatives that would satisfy the applicant's proposal.

Comment No. 5

A new power plant in Nogales is not a viable alternative to a new, second transmission line (part of TEP's proposal). Therefore, the alternative of a new power plant is not evaluated in detail in this EIS (refer also to Section 2.1.5, Alternatives Considered But Eliminated From Further Analysis). Likewise, a smaller transmission line in lieu of the proposed 345-kV line would not meet the international interconnection aspect of TEP's proposal, and therefore is not evaluated in detail in this EIS. (Refer also to Section 2.1.5, Alternatives Considered But Eliminated From Further Analysis.)

Boyle, Alice Page 1 of 2

Name: Alice Boyle

Organization: University of Arizona Email: alboyle@email.arizona.edu

Phone: 621-3532

Address1: Dept of EEB, U of A

City: Tucson State: AZ Zip: 85721 Country: USA

I strongly oppose the construction of new power lines through currently roadless or natural areas to the West of I-19. I object on 3 counts:

1) Housing density should not be equated with USE and VALUE when making land-use decisions. I am one of the people that "uses" this area frequently. Just because few people don't live in the area where the proposed power line will cross does not mean that many people do not use it and 1 object to the degradation of a unique part of this country. 2) Disturbance caused by the construction, the maintenance, and the lines and poles themselves I believe will further limit habitat for several rare organisms that the state of Arizona is priveleged to protect. Extreme southern Arizona is home to many species of plants and animals found nowhere else in the US (e.g. 5 striped sparrows and an epiphytic bromeliad related to spanish moss). Sycamore Canyon and areas near to Sycamore are the only know localities for many many species of interesting insects currently studied by faculty and students in at least 3 U of A depts. 3) Aesthetic degradation is a serious issue. Quality of life cannot solely be measured by the voltage

Comment No. 1

Sections 3.1 and 4.1 present analyses of the affected environment and potential impacts to land use from the proposed project. Sections 3.2 and 4.2 present a description of the existing visual resources and analyze the potential impacts to these resources from the proposed project. Sections 3.3 and 4.3 present a description of the existing biological resources and analyze potential impacts to these from the proposed project.

Comment No. 2

A new power plant in Nogales is not a viable alternative to a new, second transmission line (part of TEP's proposal). Therefore, the alternative of a new power plant is not evaluated in detail in this EIS (refer also to Section 2.1.5, Alternatives Considered But Eliminated From Further Analysis).

Boyle, Alice Page 2 of 2

1 of your entertainment system. Humans need visual, audio, and cont. I spiritual refuges from the stressors of modern society. I seek the refuge of the natural world every weekend, and power lines completely ruin an area for me. I have hiked the Arizona trail north of Oracle where for miles (3 days' walking) the trail zigzags a power line similar to the proposed Sahuarita-Nogales one. The buzzing sound, the access roads, and the unsightly blemishes of all those towers prevented the release of my mind from the worries and stresses that I hike to escape from.

Please seriously reconsider the need for this power line. Try to separate out genuine need from a desire to make more money by selling power to Mexico. I advocate a local power plant if needed.

Thanks

Alice Boyle

Bradley, Curt Page 1 of 1

10/02/2003 13:29 5206239797 CNTR 4 BIODIVERSITY PAGE R1 Dr. Jerry Pell U.S. Department of Energy, Office of Fossil Energy (FE-27) 1000 Independence Avenue. SW Washington, D.C. 20585 October 1, 2003 Dear Dr. Pell, I am writing to urge you to withdraw the current draft Environmental Impact Statement for Tucson Electric Power's proposed 345 kV powerline. TEP's proposed "Western Route" and "Crossover Route" would carve through some of the most remote and wild areas in all of Southeast Arizona, forever scarring the beautiful and irreplaceable landscape of the Tumacocori Mountains and Atascosa highlands. The goal of providing reliable electrical service to Santa Cruz county can be achived without destroying our environmental and cultural heritage. 615 E Mabel Tucson, AZ 85705

Comment No. 1

The Draft EIS was prepared in accordance with Section 102(2)(c) of NEPA, the Council of Environmental Quality (CEQ) regulations (40 *Code of Federal Regulations* [CFR] Parts 1500-1508), and all applicable laws, regulations, and agency policies. The Federal agencies have determined that the Draft EIS does not need to be re-issued for additional review.

Comment No. 2

Sections 3.1 and 4.1 (Land Use) and 3.2 and 4.2 (Visual Resources) include discussion on the existing land use and visual resources, and potential impacts to these resources in the Tumacacori and Atascosa Mountains from the proposed project.

Comment No. 3

Section 1.2 of the Final EIS explains the roles of TEP and the Federal agencies in developing alternatives for the proposed project. Where an applicant seeks a permit for a particular business project, such as the case with TEP's proposed project, the Federal agencies generally limit their review of alternatives to those that would satisfy the applicant's proposal and decide whether that proposal is or is not worthy of receiving a permit. The Federal agencies do not review alternatives that are not within the scope of the applicant's proposal. Similarly, the agencies do not direct the applicant to alter its proposal; instead, the agencies decide whether a permit is appropriate for the proposal as the applicant envisions it. It is not for the agency to run the applicant's business and to change the applicant's proposal, but only to evaluate the environmental effects of the applicant's business proposal as offered. Accordingly, the EIS evaluates a reasonable range of alternatives, which include the full spectrum of alternatives that would satisfy the applicant's proposal.

Brady, Christine Page 1 of 1

Forwarded by Susan K Kozacek/R3/USDAFS on 10/15/2003 02:14 PM ---- cmbrady@csupomona.edu 10/09/2003 07:10 PM

To: skozacek@fs.fed.us

cc:

Subject: EIS for Tucson Electric Power's proposed 345 kilovolt powerline

Ms. Sue Kozacek Coronado National Forest Federal Building, 300 West Congress Tucson, AZ 85701

Dear Ms. Kozacek.

I am writing to urge you to withdraw the current draft Environmental Impact Statement for Tucson Electric Power's proposed 345 kilovolt powerline.

Our energy policy should be based on serving the public interest of American citizens. We should not be pandering to corporate profits at the expense of America's natural heritage and the citizens who enjoy and reap benefits from it.

Sincerely,

Christine Brady 5424 Briney Pt St 3801 W. Temple Ave.

Comment No. 1

The commentor's opinion that the Draft EIS should be withdrawn is noted.

Comment No. 2

Section 1.2 of the Final EIS explains the roles of TEP and the Federal agencies in developing alternatives for the proposed project. Where an applicant seeks a permit for a particular business project, such as the case with TEP's proposed project, the Federal agencies generally limit their review of alternatives to those that would satisfy the applicant's proposal and decide whether that proposal is or is not worthy of receiving a permit. The Federal agencies do not review alternatives that are not within the scope of the applicant's proposal. Similarly, the agencies do not direct the applicant to alter its proposal; instead, the agencies decide whether a permit is appropriate for the proposal as the applicant envisions it. It is not for the agency to run the applicant's business and to change the applicant's proposal, but only to evaluate the environmental effects of the applicant's business proposal as offered. Accordingly, the EIS evaluates a reasonable range of alternatives, which include the full spectrum of alternatives that would satisfy the applicant's proposal.

Brewer, Leslie Page 1 of 1

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Leslie Brewer
   atarfed@earthlink.net
   (520) 398-9574
   FO Box 550
   13560
   Arivaca, AZ 85601
   United States
   To: translineinfo@tucsonelectric.com
   Re: TEP Sahuarita to Nogales Transmission Line
   THE ARIVACA AREA OPINION 7/28/03
         Out of the four proposed project corridors the general consensus of the people of
   Arivaca and the Arivaca Valley area is as follows:
         The Eastern route is the favorite of the four.
         The Central route is favored less so.
         The Crossover and the Western routes are NOT FAVORED AT ALL and are felt to be the
1 most potentially invasive to the balance of our delicate community.
   This is IF we have to be confined to the four proposed routes. The one that makes the most sense to us is not even on the table for consideration. This is the route that
  follows along next to I-19, ALREADY AN INDUSTRIAL CORRIDOR.
         We feel that this is a project of the highest impact to our small community and the
   surrounding occupied foothills we call Arivaca. We hope that our opinion will be
   adequately considered by those making this decision.
   Sincerely yours,
   Leslie G Brewer, D.O
   PO Box 550
   Arivaca, AZ 85601
   starfed@earthlink.net <mailto:starfed@earthlink.net> (520)398-9574 7/26/2903 7:00:17 PM
```

Comment No. 1

Section 2.1.5, Alternatives Considered But Eliminated from Further Analysis, of the Final EIS discusses the reasons why the Eastern and I-19 Corridors were eliminated from further analysis.